

REMARKS/ARGUMENTS

Claims 1-20 are pending. By this Amendment, claims 1, 2, 5-7, 12, 14-16 and 20 are amended. No new matter has been added. Claims 1, 2, 5, 14-16 and 20 are amended to positively recite and clarify claimed features. Claims 6, 7 and 12 are amended for antecedent basis.

The attached listing of claims assumes entry of the November 23, 2004 Amendment to claim 16.

For the following reasons, reconsideration is respectfully requested.

I. REPLY TO REJECTIONS

A. 35 U.S.C. §112, Second Paragraph

On page 2 of the August 23, 2004 Office Action, claims 16-19 are rejected under 35 U.S.C. §112, second paragraph as indefinite for lacking sufficient antecedent basis for a claim term. Claim 16 was amended in the November 23, 2004 filed Amendment to obviate the rejection. Withdrawal of the rejection is respectfully requested.

B. 35 U.S.C. §102 Rejections

On page 3 of the August 23, 2004 Office Action, claim 16 is rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,489,103 to Okamoto. The rejection is respectfully traversed.

Claim 16 calls for extracting a game list comprising game related information from a transport stream that includes image and audio information of a broadcast signal, a listing of game programs, and game-related information.

Okamoto discloses sending a retrieved game data via the headend 130 to the transmission paths 200, the game data being received at the personal communicator 1, and being stored in the memory 8 (column 6, lines 27-34; Figures 2 and 6). Okamoto shows three separate databases, namely, a game database 101, a karaoke database 103, and an other database 105, each respectively connected to a game data transmitter 111, a karaoke data transmitter 113, and an other data transmitter 115 (column 4, lines 39-46, Figure 2). Each of the databases 101, 103, and 105 are accessed separately corresponding to a specific request for game data, karaoke data, or other data (column 4, lines 47-53). When game data is requested, only the game data, (i.e., software of a video game) is sent to the transmission paths 200 (column 6, lines 23-31). In Okamoto, no game list is extracted from a transport stream that includes image and audio information of a broadcast signal, a listing of game programs, and game related information. Rather, three separate types of data are separately transmitted upon request. Okamoto fails to disclose the extracting step and fails to disclose a transport stream as called for in claim 16.

Consequently, claim 16 is patentable over Okamoto. Withdrawal of the rejection is respectfully requested.

On page 3 of the August 23, 2004 Office Action, claims 2-4 and 14 are rejected under 35 U.S.C. §102(e) over U.S. Patent No. 5,944,608 to Reed et al. (hereinafter "Reed"). The rejection is respectfully traversed.

Claim 2 calls for a multiplexer configured to convert image and audio information of a broadcast signal, a game program, and game related information into a transport stream. Claim 14 calls for converting image and audio information of a broadcast signal, a game program, and game related information into a transport stream.

Reed discloses a tone multiplexer 304 which multiplexes data and allows up to 100 or more tone channels to be transmitted (column 16, lines 64-67). The tone multiplexer 304 output is used by a modulator 306 to frequency modulate an amplifier 308 which receives input from an oscillator 310 (column 17, lines 1-5). Reed specifically discloses using the tone channels to transmit the data. Reed discloses that sending the game data may include using eight tone channels in groups to provide a parallel data path for a single game to be loaded into memory locations having eight bits per location, or using 15 modulated tone channels, each of which maybe used to provide computer data for one video game (column 17, lines 26-31). In fact, Reed discloses a demultiplexer 320 used to recombine the data into original format (column 17, lines 21-22). Thus, Reed's multiplexer 304 is able to multiplex (or split up) one game into different tone channels, or multiplex one game per one tone channel. However, Reed fails to disclose that the multiplexer 304 is able to multiplex items other than a computer data for a

single game. Consequently, Reed fails to convert image and audio information of a broadcast signal, a game program, and game related information into a transport stream.

Reed fails to anticipate the above-discussed features called for in claims 2 and 14. Accordingly, claims 2 and 14 are patentable over Reed. Claims 3 and 4, which depend from claim 2, are likewise patentable over the applied reference for at least the reasons discussed above and for the additional features they recite. Withdrawal of the rejection is respectfully requested.

C. 35 U.S.C. §103 Rejections

On page 4 of the August 23, 2004 Office Action, claim 15 is rejected under 35 U.S.C. §103(a) over Reed. The rejection is respectfully traversed.

As discussed above for claim 14, Reed fails to suggest all of the features of claim 14. Therefore, claim 15, which depends from claim 14, is likewise patentable over Reed for at least the reasons discussed above and for the additional features it recites. Withdrawal of the rejection is respectfully requested.

On page 5 of the August 23, 2004 Office Action, claims 17 and 19 are rejected under 35 U.S.C. §103(a) over Okamoto. The rejection is respectfully traversed.

As discussed above for claim 16, Okamoto fails to suggest all of the features of claim 16. Therefore, claims 17 and 19, which depend from claim 16, are likewise patentable over

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Okamoto for at least the reasons discussed above and for the additional features they recite. Withdrawal of the rejection is respectfully requested.

On page 6 of the August 23, 2004 Office Action, claim 18 is rejected under 35 U.S.C. §103(a) over Okamoto, in view of U.S. Patent No. 6,005,561 to Hawkins et al. (hereinafter "Hawkins"). The rejection is respectfully traversed.

Hawkins fails to overcome the deficiencies in Okamoto discussed above for claim 16. Therefore, claim 18, which depends from claim 16, is patentable over the combination of Okamoto in view of Hawkins for at least the reasons discussed above and for the additional features it recites. Withdrawal of the rejection is respectfully requested.

On page 6 of the August 23, 2004 Office Action, claim 20 is rejected under 35 U.S.C. §103(a) over the reference to Lazzuri, in view of Hawkins. The rejection is respectfully traversed.

Claim 20 calls for a downloader configured to receive a broadcast signal of a channel, and to download a game program ordered by a user using game-related information encoded with the broadcast signal.

Lazzuri, in view of Hawkins, fails to suggest the features called for in claim 20 because there is no suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the references or to combine reference teachings, and there is no reasonable expectation of success.

Lazzuri discloses that the SEGA channel signal originates in Denver, Colorado and is carried over the Galaxy-7 satellite. The uplink signal is carried at a carrier frequency of 1.435 GHz while the downlink signal is at a frequency of 1.1 GHz (Lazzuri's drawing figure). The downlink signal is then provided to a subscriber loop (Lazzuri's drawing figure).

Compared to this method of signal delivery, Hawkins discloses that its cable system uses a bi-directional trunk system 22 (Figure 2) where two signals, analog and digital, are used (column 9, lines 61-67, Figures 3A-3C). Both the analog uni-directional and the digital bi-directional frequency spectrums are sub-divided into 6 MHz channels (Figure 3C, column 9, lines 65-67). Data are then encoded and transmitted within the divided channels (Figure 7, column 12, lines 25-46).

It is respectfully submitted that one of ordinary skill in the art would have had no motivation to selectively combine portions of the Lazzuri system with portions of the Hawkins system to arrive at the apparatus recited in claim 20. Specifically, there is no motivation to combine Lazzuri's satellite based system for the SEGA channel, which uses an uplink and downlink signals which are uni-directional with the bi-directional trunk system utilizing a digital bi-directional segmented cable frequency spectrum as discussed in Hawkins. The compatibility between the systems of Lazzuri and Hawkins is unclear and the Office Action merely asserts the alleged obviousness of the combination. In fact, the combination of Lazzuri and Hawkins fails

to suggest the features of claim 20. For all these reasons, it is respectfully submitted that the combination is improper and that claim 20 is patentable over the applied references.

On page 7 of the August 23, 2004 Office Action, claim 1 is rejected under 35 U.S.C. §103(a) over Reed, in view of Okamoto, and further in view of U.S. Patent No. 6,320,868 to Okano et al. (hereinafter "Okano"). The rejection is respectfully traversed.

Claim 1 calls for a multiplexer configured to convert image information and audio information of a broadcast signal, a game program, and game related information into a transport stream. As discussed above for claim 2, Reed fails to disclose such a multiplexer. Instead, Reed's multiplexer 304 merely divides up a single game program and transmits each portion through a plurality of tone channels or transmits a plurality of game programs in separate tone channels. Okamoto and Okano fail to overcome the deficiencies in Reed. Therefore, claim 1 is patentable over the applied references. Withdrawal of the rejection is respectfully requested.

On page 8 of the August 23, 2004 Office Action, claim 5 is rejected under 35 U.S.C. §103(a) over Okamoto in view of Okano. The rejection is respectfully traversed.

Claim 5 calls for a tuning unit configured to receive image and audio information of a broadcast signal, a game program ordered by a user, and game related information, and configured to select either image or audio information corresponding to a channel desired by a user, or a game program ordered by the user.

Okamoto discloses a terminal modem 3 connected to the transmission paths 200 which includes a modulator/demodulator 3a and a video tuner 3b which selects a channel of the image to be projected (column 4, lines 64-67). Okamoto discloses a video tuner 3b with the ability to select between channels or an image to be projected, but fails to disclose the ability to select between image and audio information of a broadcast signal or a game program ordered by the user, as called for in claim 5. Further, it appears Okamoto cannot select between an image and audio information of a broadcast signal or a game program because, as discussed above for claim 16, Okamoto has only the ability to transmit a game data, karaoke data, or other data one at a time (column 4, lines 39-56, column 6, lines 23-31). Okano fails to overcome the above-discussed deficiencies in Okamoto. Consequently, claim 5 is patentable over the applied references. Withdrawal of the rejection is respectfully requested.

On page 9 of the August 23, 2004 Office Action, claims 6-8 are rejected under 35 U.S.C. §103(a) over Okamoto in view of Okano, in further view of Lazzuri. The rejection is respectfully traversed.

As discussed above for claim 5, the combination of Okamoto and Okano fails to render obvious the features of claim 5, from which claims 6-8 depend. As Lazzuri fails to suggest the features lacking in Okamoto, Okano, or their combination, claims 6-8 are patentable over the applied references for at least the reasons discussed above and for the additional features they recite. Withdrawal of the rejection is respectfully requested.

On page 10 of the August 23, 2004 Office Action, claims 9-13 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,513,160 to Dureau, in view of Okano, and further in view of Lazzuri. The rejection is respectfully traversed.

Claim 9 calls for a processor configured to receive an input from a user interface, and to output either a first control signal to select a broadcast signal of a channel desired by a user, or a second control signal to order a game desired by the user.

Dureau discloses a set top box 20 which maybe a processing unit for receiving and processing a transmitted signal and conveying the processed signal to a television or other monitor (column 4, lines 18-22). The set top box 20 is disclosed to serve to modulate the signal containing both an application and a television program received from broadcast station 12 and to separate the application from the television program. The set top box also executes the application and combines the audio and video portions of the television program with video and/or audio generated by the application as required by the application (column 4, lines 27-33).

A return path through a modem within the set top box connected to a standard telephone line may be used to provide data to the broadcast service provider (column 4, lines 37-43). Therefore, Dureau discloses some interaction between the set top box 20 and a broadcast station 12. However, Dureau fails to disclose a processor that is able to output a second control signal to order a game desired by the user. That is, there is no game ordering disclosed in Dureau. The genie character referred to in the Office Action is a pre-existing program or a pre-

embedded interactive application. Portions of the genie program is pre-stored in the set top box 20 (column 7, lines 58-61) while other genie related applications are automatically sent embedded in the broadcast signal (col. 5, lines 54-57). The genie is not a game ordered by a user upon an output of a second control signal.

Okano and Lazzuri fail to disclose such a processor and fail to overcome the deficiencies in Dureau. Consequently, claim 9 is patentable over the applied references. Claims 10-13, which depend from claim 9, are likewise patentable over the applied references for at least the reasons discussed above and for the additional features there recited. Withdrawal of the rejection is respectfully requested.

Applicant notes that the claims specifically calls for broadcast signals and clearly delineates the game related information from the broadcast signal. Therefore, in view of the disclosure in the specification and claims, it is clear to one of ordinary skill in the art that in view of the specification, the image and audio information are not related to the game program but instead is of the broadcast signal or a channel.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact

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the undersigned attorney, **Seth S. Kim**, at the telephone number listed below. Favorable consideration and prompt allowance are earnestly solicited.

Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP



John C. Eisenhart
Registration No. 38,128
Seth S. Kim
Registration No. 54,577

P.O. Box 221200
Chantilly, Virginia 20153-1200
703 766-3701 DYK/JCE/SSK:knv
Date: December 22, 2004

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